National Reporting System
for Adult Education

GUIDELINES FOR CONDUCTING THE FOLLOW-UP SURVEY

Division of Adult Education and Literacy
Office of Vocational and Adult Education
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National Reporting System

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I. Overview of NRS Survey Requirements

The National Reporting System (NRS) established the reporting requirements for the adult education program required by Title II of the Workforce Investment Act, the legislation that authorizes the federal adult education program. The NRS defines the measures local programs must collect, the methodologies for collecting them and state reporting requirements. While the NRS includes student descriptive measures (e.g., student age and ethnicity) and participation measures (e.g., contact hours), it is the student outcome measures that have the greatest impact on the adult education delivery system. Exhibit 1 summarizes the NRS core outcome measures.

Exhibit 1

NRS Core Outcome Measures

Topic	Measures	Definitions
Educational Gains	• **Educational gains**	Improvements in educational functioning levels in reading, writing, speaking and listening and functional areas
Follow-up Measures	• **Entered employment**	Learners who obtain a job by the first quarter after exit quarter
	• **Retained employment**	Learners who entered employment who are employed in the third quarter after program exit
	• **Receipt of secondary school diploma or GED**	Learners who obtain a GED, secondary school diploma or recognized equivalent
	• **Placement in postsecondary education or training**	Learners who enroll in a postsecondary educational or occupational skills program building on prior services or training received

Along with the descriptive and participation measures, programs collect the educational gain measure while students are enrolled in the program. However, programs must collect the NRS "follow-up" measures—entered and retained employment, receipt of

secondary credential and placement in postsecondary education or training—after the student has left the program .[1] Furthermore, the follow-up measures are student goal dependent—that is, they apply only to students who designate one of these outcomes as a main or secondary goal for attending. The employment measures apply only to students with a goal of obtaining a job and the receipt of postsecondary credential applies only to students who enter with a goal of obtaining this outcome, for example. Section 231(e) (2) of WIA also requires that *all* programs in every state report these measures. The challenge for local programs is to locate students after they have left the program to obtain the outcome measure.

The NRS *Implementation Guidelines* describe two methodologies for collecting the follow-up measures: data matching and surveys. Data matching relies on using other databases, such as unemployment insurance wage records, to obtain the measures by matching student records with the information in the database. States use this procedure to meet reporting requirements for participants of job training programs (Title I of the Workforce Investment Act). Unfortunately, most states currently do not have the ability to use other data sources to collect all of the follow-up measures on adult education students. For some of the measures, extant data sources do not exist or the state lacks the infrastructure to perform the data matching. Consequently, most states will have to collect at least some of the follow-up measures through a survey of learners.

OVERVIEW OF THIS DOCUMENT

This document presents the guidelines for conducting the NRS follow-up survey. The next section explains all aspects of conducting the survey, beginning with a discussion of the outcome measures to collect through the survey and how to identify students that should be included. This discussion also explains the time periods in which to collect the measures, focusing on the employment measures, which are dependent on students' exit dates.

This section continues with a discussion of the issue of sampling and outlines the conditions when programs should include all students in the survey and when programs should draw a sample of students. Included in this section is a presentation on basic sampling concepts and terms, followed by the guidelines for sampling to meet the NRS survey requirements.

Section III presents the states' administrative responsibilities for the survey, reporting requirements and quality control procedures, along with suggestions for alternative methods for collecting the follow-up measures. There are three appendices. Appendix A provides the rationale for, and statistical information on, the sampling requirements. Appendix B has sample surveys and examples of procedures for drawing a random sample, a procedure for conducting the survey and advice on training survey staff. Appendix C describes the procedure for computing the statewide average from individual program data for federal reporting.

[1] Programs may count as entered employment students who obtain a job while enrolled, although the outcome is reported when the student exits. For a full description of the NRS requirements see *National Reporting System for Adult Education: Implementation Guidelines*, March 2001. Office of Vocational and Adult Education, U.S. Department of Education.

NRS Survey Requirements: Executive Summary

To meet the reporting requirements for adult education programs in the Workforce Investment Act, states must collect from every local program four measures on students after they leave the adult education program: entered employment, retained employment, receipt of a secondary diploma or GED and entry into postsecondary education or training. These measures are collected only from students who designate these outcomes as their goals upon entry into the program. States must measure entered employment within the first quarter after students' exit quarter from the program and retained employment in the third quarter after exit. Retained employment is measured only for students who obtained a job within the first exit quarter and for students who entered with a goal of improved or retained employment. The other outcomes can be collected at any time up to the reporting deadline (December 31), although quarterly collection is recommended.

All local programs must report on the measures. Programs that have 300 or fewer students in any outcome area should include all of these students in the survey, but programs with 300 to 5,000 students in each outcome goal area may draw a sample of at least 300 students. Programs with more than 5,000 students with any outcome goals must draw a sample of at least 1,000 students. In all cases, programs should get a 50% response rate or a minimum of 150 students in each group, if sampling is used (500 students per group for programs with over 5,000). A telephone survey is recommended.

The state is responsible for survey administration, which includes ensuring that local programs have management information systems capable of identifying the students to be surveyed, determining which programs can sample students, whether optional measures should be collected and developing the survey instrument. States must also provided training and technical assistance to local staff, implement quality control procedures and aggregate local data for federal reporting. States are to report the statewide mean percentages, conference intervals and response rates for programs that sample students.

II. General Procedures for Conducting the Survey

Conducting a follow-up survey is a complex activity that requires good organization and planning. This section describes the NRS procedures for planning and conducting the NRS follow-up survey, including identifying who is to be included in the survey, whether and how to sample students for the survey, when to conduct the survey and the methodology for conducting it. The administrative issues concerning the survey instrument itself, monitoring of the survey procedures, training of staff conducting the survey and reporting of findings are also addressed.

Who and When to Survey

WIA, section 231 (e)(2) requires that all local programs in every state report on the core outcome measures. However, only students who designate a main or secondary goal related to the follow-up measures need to be surveyed. In addition, only the outcome related to the goal needs to be measured. For example, only students unemployed at entry who designated a main or secondary goal of "obtain a job" need to be surveyed for the entered employment measure and only learners with the goal of obtaining a secondary credential or entering postsecondary education need to be surveyed for those measures. Exhibit 2 summarizes the student population to include for each follow-up measure and when to collect it.

Exhibit 2

Student Population and Collection Time for Core Follow-up Outcome Measures

Core Outcome Measures	Student Population to Include	Time Period to Collect Measures
Entered employment	Learners unemployed at entry with employment goal who exit during the program year.	First quarter after exit quarter.
Retained employment	Learners unemployed at entry with employment goal who obtain a job during first quarter after exit; *and* learners employed at entry with a goal of retained or improved employment who exit during the program year.	Third quarter after exit quarter. measured for students exiting the last two quarters of the program year.
Placement in postsecondary education or training	Learners with a goal of entering postsecondary education or other training.	Any time prior to the reporting deadline (December 31).
Receipt of secondary diploma or GED	Learners with a goal of obtaining a secondary diploma or passing GED tests.	Any time prior to the reporting deadline (December 31).

*Exit quarter is the quarter when the learner completes instruction or has not received instruction for 90 days and has no instruction scheduled. A job obtained while the student is enrolled can be counted, but is reported in the first quarter after exit quarter.

Identifying learners for the retained employment measure is more complex than the other measures, as this measure applies to the learners who had a goal of obtaining employment goal *and* who then entered employment. The measure also applies to learners who had a goal of retained or improved employment. Measurement of both employment-related measures—entered and retained employment—is complicated further by the fact that these measures are time sensitive: the outcome must occur during a specific time period. The learner must enter employment by the end of the first quarter after the exit quarter (defined as the quarter when the learner completes instruction or has not received instruction for 90 days and has no instruction scheduled). A job obtained while the learner is still enrolled may be counted but is also reported in the first quarter after exit quarter. Retained employment is measured by determining whether the learner has a job in the third quarter after the exit quarter. [2]

Identifying and Surveying Learners: Employment Measures

Exhibit 3 illustrates the identification of learners with employment–related goals for the survey using a hypothetical group of learners who enter a program on July 1, 2000. Of these learners, 120 have employment-related goals: 100 of them are unemployed and have a goal of obtaining employment and 20 additional learners have a goal of improve or retain employment. For this group of students, instruction ends by the end of September 2000, making this quarter in which their exit date falls—the first quarter of program year 2000—the exit quarter.

For the 100 learners with a goal of obtaining a job, whether they entered employment is measured during the first quarter after the exit quarter or the period October 1, 2000 to December 31, 2000. In this example, 65 of the 100 learners obtained a job. The remaining 35 learners no longer need to be followed, even if they enter employment in subsequent quarters. For the 65 learners who entered employment and the 20 additional learners who entered with a goal of retain or improve employment, retained employment is measured in the third quarter after exit, or the period April 1, 2001 through June 30, 2001 (the last quarter of the program year).

The time lag for the retained employment measure creates a substantial challenge to local programs to keep track of the shrinking cohort of students and to survey them at the correct time. A further difficulty created by the time lag is that the follow-up period for retained employment and entered employment goes beyond the program year. Programs must collect retained employment in the next program year on learners who exit in the second program quarter and must collect entered employment on learners who exit in the fourth program quarter.

Exhibit 4 provides an example of when programs must measure retained and entered employment, using the 2000-2001 program year (July 1, 2000 through June 30, 2001) as an example. The reporting deadline for this program year is December 31, 2001.

[2] The time period for the employment measures is identical to the corresponding measures under Title I of WIA to allow for data matching using the unemployment insurance wage record data base.

Exhibit 3

Employment Measure Flow Chart for Adults Enrolled and Left by the End of the First Quarter

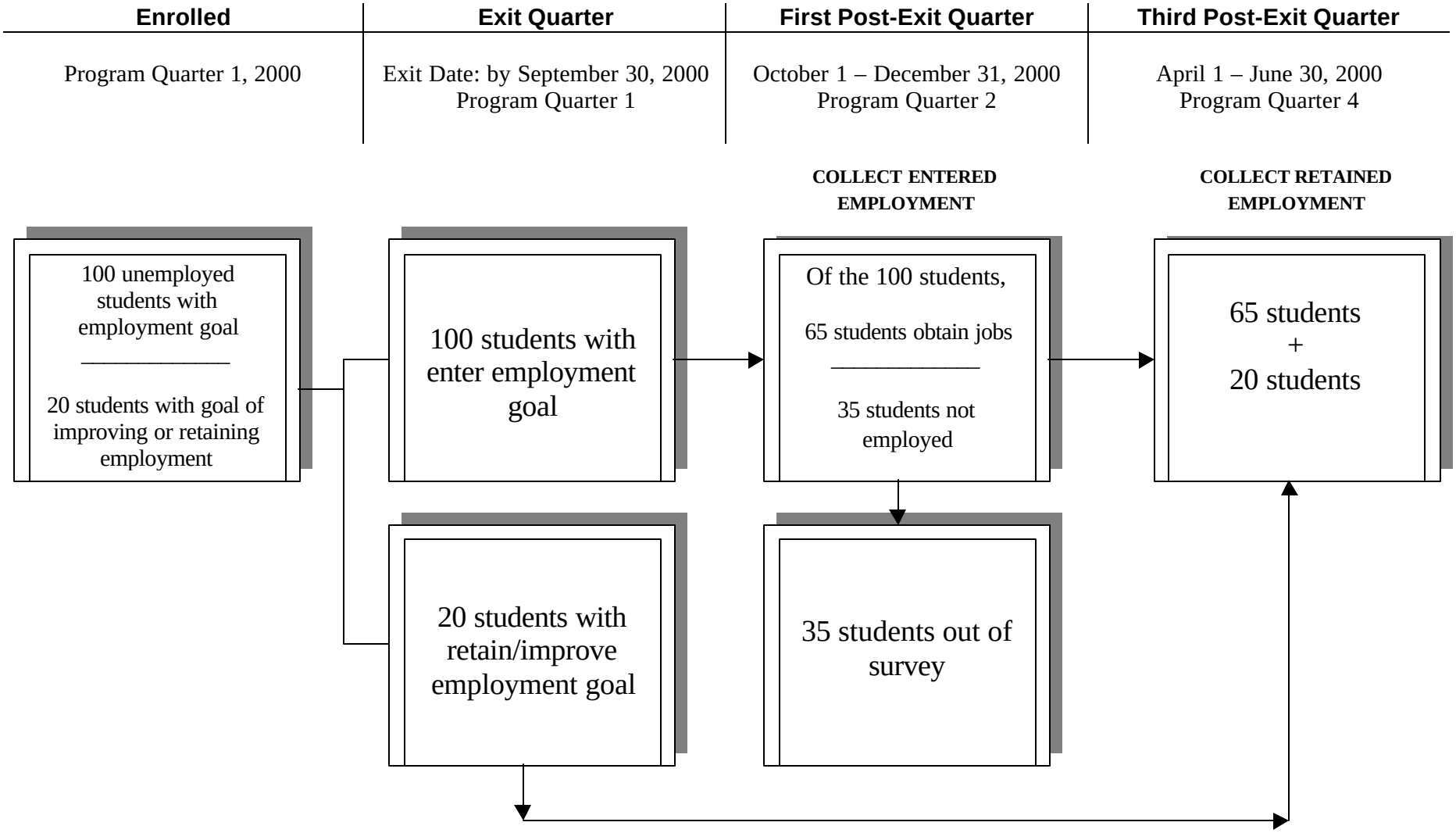

Exhibit 4

Quarterly Periods for Collecting Entered and Retained Employment For Program Year 2000-2001

Exit Quarter	Collect Entered Employment by the end of:	Collect Retained Employment by the end of:
First Quarter (July 1–September 30, 2000)	Second Quarter	Fourth Quarter
Second Quarter (October 1–December 31, 2000)	Third Quarter	First Quarter, Next Program Year (July 1 – September 30, 2001)
Third Quarter (January 1–March 31, 2001)	Fourth Quarter	Not Reported
Fourth Quarter (April 1–June 30, 2001)	First Quarter, Next Program Year (July 1 – September 30, 2001)	Not Reported

Note that retained employment is not reported for students exiting in the third or fourth quarters of the program year (i.e., the two quarters from January 1 to June 30). Programs should measure entered employment for these students in the appropriate quarter (first quarter after exit), but do not have to measure retained employment in the third quarter after exit (quarters ending December 31 and March 31 of the next calendar year). These quarters end beyond the reporting period for the program year (December 31), so retained employment cannot be determined in time to meet the deadline for the annual report for the program year. Consequently, these students need not be surveyed and are not counted in the computation of the percentage of students retaining employment in states' performance standards.

Identifying and Surveying Learners: Receipt of Secondary Credential and Postsecondary Placement

Identifying the learners for the receipt of a secondary diploma or GED attainment and placement into postsecondary education measures is much simpler than the employment measures. Learners who designate these as goals for attending are surveyed on those measures. Likewise, deciding when to collect these measures is easier, since the NRS does not require measurement of these outcomes at any specific time. Programs can assess these outcomes at any time during the reporting period and should determine the most appropriate time for collecting them. For example, placement in postsecondary education could be collected shortly after the fall or spring semesters, corresponding to start times of the local community college.

Selecting Students for the Survey: Universe or Sample Survey

The WIA requires that states assess the performance of all local programs on the core outcome measures. States must obtain these measures on students from *all* of their adult education programs. For the larger programs, however, the NRS does allow states the option to decide whether to include *all* the learners in these programs in the survey—that is, the *universe* of learners—or a sample of learners from the larger programs.

Sampling a group of students can be much less expensive than a universe survey, but is problematic to the degree that the response from the students to the survey is expected to be low. Sampling creates a degree of uncertainty or error in the findings from the survey – known as sampling error – which becomes quite large, if response rate is low. Consequently, the lower the response rate, the more difficult it is to make an estimate of the true value of the outcome measure for all students. Since the response rate for adult education students is expected to be low, the use of the universe of learners in the survey rather than a sample is advantageous, since without sampling there is no sampling error (see Appendix A). However, since most states and adult education programs have minimal resources to conduct a survey, the number of students to include needs to be kept a to a minimum, making sampling attractive for large programs.

With these considerations in mind, the NRS guidelines are for programs *not* to sample students, but to *survey all students in each outcome goal area that has 300 or fewer students*. That is, all students should be identified by goal area (entered employment, retain or improve employment, enter postsecondary education, obtain secondary credential) and if the total number of students for the year for any outcome is 300 or less, *all* students in that group should be surveyed to determine whether they have achieved the appropriate outcome.[3] The minimum acceptable response rate for the survey is 50 percent. Programs may sample students for the survey for any outcome group that has more than 300 students exiting during the year.

For example, if a program has 200 students with a goal of obtain employment; all of these students who exit are to be followed to determine whether they obtained employment in the first post-exit quarter. If that same program had over 300 students in other follow-up goal areas, the program has the option to survey all of these students or to draw a sample of them. The next section presents the guidelines for sampling.

Sampling Students: Basic Concepts

Only programs that have more than 300 students in any follow-up outcome area may conduct the survey on a sample of students for those measures. The sample should be drawn according to the guidelines described below. We first present some basic concepts and terminology of sampling before presenting the guidelines.

The goal of a sample survey is to obtain accurate information about a large group of people, known as a *population*, using a smaller, representative group. Using statistical models, the findings from the sample can be estimated to the population with a known degree of precision. Consequently, sampling is less expensive and more efficient when a survey of an entire population is too large to survey. The key to a successful sample survey is to be able to generalize to the whole population with a small degree of *sampling error*. The factors affecting sampling error include:

- Sample size— the number of people to include in the sample;
- Response rate—the proportion of the sample that responds to the survey;

[3] For entered and retained employment, only students who exit are included. For the other follow-up measures, all students with the goal should be included in the follow-up for program year 2000. However, beginning July 1, 2001 only students who exit should be included in the follow-up for all measures.

- Sample selection—the procedure for drawing the sample; and
- Effect size —the size of the difference or finding you expect.

Each of these factors was considered in establishing the NRS sampling guidelines.

Sample Size. The number of people to include in a sample is of critical importance since the statistical model underlying the sample needs a minimum size to produce an estimate with a small degree of error. All other things being equal, the larger the sample the better, because the size of the error continually decreases as the size of the sample increases. However, there is a level of diminishing returns—once a large enough sample size is achieved the error decreases little and larger samples are not usually worth the additional cost. While the specific minimum or maximize number of responses needed for a survey depends on several factors, the minimum number might typically be around 100 and the maximum number around 500. However, the number to include in the initial sample depends on the expected response rate.

Response Rate. Nonresponse to a sample survey increases the uncertainty of in the results in two ways: the overall number of students responding is lowered, increasing the error and we do not know how nonrespondents would have scored on the outcome measures. It is unlikely that the nonrespondents to the survey have the same characteristics as the respondents. For example, an employment rate would be badly overestimated with high nonresponse, if most of the respondents are employed and most of the nonrespondents are unemployed. Some types of sample selection make response rates even more critical.

Sample Selection. The simple and most common way to select a sample is to draw a simple random sample. In a random sample, every person has an equal probability of selection. Random sampling is usually preferred since it is the easiest type of sampling to perform, helps keep the sampling error low and produces results that are easy to generalize to the population as a whole. With simple random sampling, the survey findings directly reflect the population.

Another type of sample is a stratified sample, where people are grouped along a dimension believed to be important to the survey. Different groups of people are first identified and then sampled separately. Ethnicity, race and sex are common ways samples are stratified. This type of sample is used to ensure that the stratified groups are adequately represented in the sample and in some cases can reduce the sampling error. The disadvantage of this procedure is that it may require that the sample be weighted to reflect the different representation of the stratified group in the sample.

Effect Size. Effect size refers to how large an effect is expected to be found in the survey population. For example in designing the NRS sample, knowing what percentage of students with an employment goal can be expected to get a job would help decisions about sample size. A larger effect creates the need for a larger sample to keep the standard error low. The difficulty in the NRS is that there are little data available that will guide us in estimating the size of the effects (e.g., number of jobs, GEDs, postsecondary enrollment) that will be found.

Exhibit 5 is a glossary of sampling terms that is helpful in planning the survey sample.

Exhibit 5

Glossary of Sampling Terms for the NRS

Population — The larger group to which the survey results are to be inferred and which a sample represents. For example, a population can be all adult education students, all students who had a goal of employment who attended an adult education program or all residents of the U.S.

Universe — All members of a group, such as all students who students enrolled in an adult education program who want to pass the GED tests.

Sample — A group drawn systematically from the population or universe of interest.

Random sampling — A sample drawn using a method whereby every member has an equal probability of being selected.

Stratified sample — A sample that is grouped according to a dimension believed to be important, such as race, sex or age. The sample is then drawn separately for each group.

Achieved or realized sample size — The number of entities or people who actually provided information to a survey or study.

Response rate — Proportion of the sample that actually responded to the survey or study, usually reported as a percent (total responded divided by total in the sample).

Standard error — A measure of the degree of uncertainty for inferring to a population from a sample. This number is used to compute the confidence interval.

Effect size — The size of the difference or effect being studied, such as the percentage achieving a goal or a mean number.

Confidence interval — a numeric interval in which the true number obtained for a population from a sample falls. The interval is stated with a degree of probability, typically 95 percent. For example, if a survey using a sample of 300 found a 25 percent effect, the confidence interval is 20 percent – 30 percent (25 plus or minus 5), meaning that there is a 95 percent certainty that the true percentage in the overall population falls within that inclusive range.

Sampling Students: NRS Guidelines

In developing the sampling guidelines for the NRS, we considered not only the statistical considerations outlined above, but also the minimal resources likely to be available to local adult education programs to conduct the survey, as well as the expected low response rate from the adult education student population. Our goal was to make the sampling for the survey as simple and as inexpensive as possible under these conditions, but yet still achieve a sampling error low enough for the findings to be meaningful. With these considerations in mind the following guidelines are the minimum requirements for conducting the NRS follow-up survey for *programs that have over 300 and fewer than 5,000 students in a program year within one or more of the outcome groups*.[4]

1. The sample must include a minimum of 300 students for each of the outcome areas;

2. A simple random sample should be drawn;

3. The response rate must be at least 50 percent. If it proves to be impossible to achieve a 50 percent response rate, the program should continue surveying so that there are at least 150 students in each outcome group.

Programs that have more than 5,000 students in a program year in any outcome group should sample at least 1,000 students with a 50 percent response rate or achieve a realized sample size of at least 500 students for each outcome group.

These sampling requirements will produce a maximum standard error of four and offer no adjustment for nonresponse. States may use other methods for sampling to meet NRS requirements upon approval from the U.S. Department of Education, but alternative procedures must meet the minimal criteria for statistical precision presented here. For example, the maximum standard error is to be four and a minimum 50 percent response rate is required. Appendix A provides more information on the statistical rationale for these requirements. Exhibit 6 summarizes the procedures for the NRS follow-up survey.

Measuring Retained Employment in a Sample. The retained employment measure needs to be collected from (1) students who had an goal of obtain employment and who got a job within the first quarter after exit and (2) students who had a goal of improve or retain employment. Thus, the group on which to collect this measure should include *all* survey respondents who report obtaining a job in the first quarter *and* all students with the improve or retain employment goal.

Measuring the NRS Optional Measures. The NRS includes a set of secondary, optional measures that states may report and collect on their students. These measures are in the areas of community and family literacy and include an employment measure for students receiving welfare. While some of the optional measures can be collected while the student is enrolled, others should be collected through a follow-up survey. For

[4] Remember that the number of students *with each follow-up outcome goal* determines whether as sample may be drawn, *not* the total number of students served by the program. As discussed earlier, if the program has 300 or fewer students in any outcome area, all of the students (the universe) are to be surveyed.

Exhibit 6

Summary of Procedures for Conducting the NRS Follow-up Survey

1. Identifying the Survey Population

- In each program in the state, identify (1) all unemployed students with a goal of obtaining a job who exited, (2) employed students with a goal of keeping or improving their current job who exited, (3) students with a goal of obtaining a secondary diploma or passing the GED and (4) students with a goal of entering postsecondary education or training. Beginning the program year that starts July 1, 2001, include only students who exited during the program year.
- Obtain the exit date or quarter for students with employment goals to identify follow-up date.
- Exclude from the retained employment measure all students with an employment goal who exited in the third or fourth quarters.
- If the state is requiring collection of the NRS optional measures, the students with goals related to these outcomes should also be identified.

2. Selecting Students for the Survey

- Survey all students in any outcome group that has 300 or fewer students in the program year.
- A simple random sample of students may be surveyed for any outcome group that has more than 300 students.
- Programs should draw a minimum sample size of 300 for each group that has 301 – 5,000 students.
- Programs should draw a minimum sample size of 1,000 for each group that has over 5,000 students.
- A minimum response rate of 50 percent is required. If less than 50 percent response rate is achieved, the program must survey for any group that was sampled until it has responses from at least 150 students (or 500 students for the largest programs).

3. Collecting the Data

- Quarterly data collection is recommended for all measures, since entered employment must be recorded for the first quarter after program exit and retained employment in the third quarter after exit.
- Retained employment is to be collected only for students exiting in the first two quarters of the program year.

4. Reporting the Findings

- Each program must report for each outcome group: the total number of students with the goal; the total number of students responding to the survey; the number and percentage of students achieving each outcome; and the total number of students included in the survey or if sampling was employed, the total number sampled.
- The state is to compute a weighted state average of students achieving each outcome by aggregating from the individual programs: the total number of students in each outcome group, response rates and the number and percentage achieving each outcome. The state must also report the state confidence interval if any local programs use sampling.

example, family literacy programs could collect measures of improved family literacy activities while the adult learner is enrolled in the program, or could conduct a follow-up survey to ask about improvements. Measures such as employment of students who were on welfare and registering to vote, however, would usually have to be collected in a follow-up survey.

If the state elects to have local programs use the follow-up survey to collect the optional measures, it is recommended that programs follow the same procedures as for the survey on the core measures. That is, the program should identify the population of students to whom the measures apply through student goals (e.g., register to vote, read more to children, get off of welfare). Where there are 300 or fewer students in a goal area in a program year, the program must include all of the students in the survey. Where there are more than 300 students in a goal area in a program year, the program may sample, according to the guidelines outlined above for the core measures.

Procedure for Conducting the Follow-up Survey

Surveys are conducted by mail, telephone or through an in-person interview. The latter option is extremely costly and is not feasible for adult education programs. A mail survey, while inexpensive and very easy to administer, normally produces an unacceptably low response rate—typically around 10 percent. Consequently it is highly recommended that local programs conduct the follow-up survey by telephone. The telephone survey may be supplemented with a mail survey and by information collected while the student is enrolled. For example, programs could supply students with an employment goal with a postcard to return when they obtain a job, or the teacher could obtain this information while the student is still enrolled. Programs may conduct only a mail survey, at the state's option, if a 50 percent response rate can be achieved.

Informing Students of the Survey

It is very important to the success of the survey that students know they may be contacted later and asked about their outcomes, since the main challenge in conducting a survey is finding the students after they leave the program. As discussed above, as many students as possible must be surveyed, since the response rate is critical to the validity of the survey findings. For this reason, programs should inform students with follow-up goals about the survey upon entry into the program and collect extensive contact information about them, such as addresses and phone numbers of relatives or others who may know of the students' whereabouts over time. In addition, students should be encouraged to provide new addresses and phone numbers when they move. Programs should implement procedures to update this information periodically while the student remains enrolled. These procedures will greatly assist locating students months later when the survey is conducted.

When to Conduct the Survey

The entered and retained employment measures are tied to calendar quarters. To collect these measures programs must identify an exit quarter and then collect the measure in the first or third post-exit quarter. For this reason, the simplest time to conduct the survey is quarterly. If quarterly collection is conducted, the survey should begin no sooner than the last month of the quarter and be completed within three months (one quarter). The attainment of postsecondary credential and entering postsecondary education measures are

not time bound, so while they can be collected at any time during the reporting period, the easiest option is to also collect them by quarter. The program should determine the optimal time to collect these measures. For example, it may be advisable to collect the entry into postsecondary measure in the fall quarter when most students enter community college. If there are scheduled time when the GED tests are given, the program could measure that outcome for students with the secondary credential goal around that time. It is recommended that equal numbers of students be surveyed each quarter. For example, if 300 students are to be surveyed, about 75 students should be surveyed each quarter.

While quarterly data collection is strongly recommended, states may set other times to conduct the survey, if they are more convenient or cost-efficient. For example, the program could conduct continuous, ongoing surveys or could conduct the survey biannually (such as in December and June). However, the time lag to contact students after they exit the program should be as short as possible. The longer the time, the lower the response rate (since some students will move) and the less valid the data are likely to be.

Identifying Survey Respondents

Each program's management information system needs to have the capability to produce a list of students eligible for the survey. The lists should be organized by students' outcome goal and include each student's identifying and contact information. The list should include exit dates or quarters for students with employment goals. As explained above, if there are 300 or fewer students in any outcome area, the program should survey all of these students. If there are over 300 students in any area, a sample may be drawn. A simple random procedure should be used to draw the sample. If possible, an approximately equal number of students should be drawn for each survey collection time (e.g., a quarter of the total student sample each quarter). Appendix B illustrates a procedure for drawing a random sample for the NRS survey.

Survey Questions

The survey itself should be brief, since people are unlikely to want to spend more than a few minutes responding to it. After explaining the purpose of the survey, the interviewer need only ask the specific questions related to the student's outcome to collect the NRS measure. Below are sample questions for each measure.

- **Entered Employment**—Have you gotten a job since you left the program? If yes, when? Where do you work?

- **Retained employment**—Are you currently employed? If yes, where do you work?

- **Enter postsecondary education or training**—Have you enrolled in a community college, a four year college, another postsecondary school, a job-training course or another education or training course since you left the program? If yes, where have you enrolled?

- **Obtained a postsecondary credential or passed the GED**—Have you passed the GED tests or obtained a high school diploma since you left the program?

Once students are contacted, states or programs may wish to use the opportunity to collect additional information using the survey, such as the student's satisfaction with the program or other outcome measures. Appendix B includes two surveys, one that collects only basic information and another that also collects NRS optional measures and other information in which programs may be interested.

III. STATE ADMINISTRATIVE RESPONSIBILITIES FOR CONDUCTING THE SURVEY

To help control the quality of data collected, the NRS requires that the state direct the management and administration of the NRS follow-up survey. State control of the survey process will ensure that local programs identify and select the appropriate students for the survey, ask comparable survey questions, follow the appropriate methodology and consistently report findings. States also must implement procedures to verify the validity of survey findings. This section presents the NRS guidelines in each of these areas.

Survey Administration

State staff may directly conduct the survey, hire a third party contractor or have local program staff conduct the survey, as long as data are collected from *all* funded programs.[5] However, regardless of who actually collects the survey data, the state is to establish and direct the general survey procedures to ensure conformance with the NRS guidelines. The specific state responsibilities are to:

- Ensure the state or local management information system can generate student lists with contact information by outcome area. For students with an employment goal, the lists should also include the exit date.
- Determine whether any or all of the NRS optional measures should be collected through the survey.
- Determine which programs, if any, can sample students for the survey.
- Determine whether the survey is to be conducted by telephone or mail.
- For programs that sample, ensure that NRS sampling procedures are followed, including that the program draws a simple random sample, draws the minimum sample size and achieves the minimum response rate.
- Establish the time when the survey is to be conducted, such as monthly, biannually or quarterly.
- Provide the actual survey instrument or questions programs should ask. Local programs should not develop their own survey, but the state should provide a standard statewide survey. See Appendix B for sample surveys.
- Ensure programs comply with NRS reporting requirements for the survey.
- Conduct studies to verify the validity of survey data (see below for more information).

[5] Section 231 (e)(2) of Title II of WIA requires states to assess the performance of every funded local program using the core indicators.

To meet these responsibilities, states need to implement procedures to train local survey staff on survey requirements, provide ongoing technical assistance and monitor compliance with survey procedures.

Survey Reporting

The state must report to the U.S. Department of Education (ED) the overall state percentage of students who achieved each of the follow-up outcomes. As required under WIA, ED will report these measures to the Congress as indicators of the overall performance of the adult education program. The measures are also one factor that ED will use to determine the state's eligibility for incentive awards available under WIA.

To compute the state overall measures for each outcome, the state will have to aggregate each of the measures from every local program to compute a state average. Each local program must report the following information to the state to enable computation of the state average.

- Total number of students in each outcome group served during the year (for employment measures, the number who had an employment goal and exited; for other follow-up measures, count all students until the program year beginning July 1, 2001. Thereafter, count only exited students for all follow-up measures);
- If the program sampled, the total number of students sampled;
- Number of students who responded to the survey (the realized or actual sample size) and the response rate; and
- The percentage of students achieving each outcome.

Using the individual program percentages, the state must compute and report the state average on NRS Table 5 (see Chapter V, *Measures and Methods for the NRS: Implementation Guidelines*). Exhibit 7 shows a sample reporting form for local programs to report survey results.

Computing the State Average

Using the information from every local program, the state is to compute a state average. Appendix C explains how to calculate the average and includes the statistical formula. The statistical procedure produces a weighted average and gives more weight to data from large programs. That is, data from larger programs will have a greater impact on the state average than data from smaller programs, since the larger programs serve more students and the sample from these programs represent a greater number of students. The weighted average also allows adjustment for nonresponse, since NRS policy allows the assumption that nonrespondents achieve the outcome in the same proportion as respondents (see Appendix A). If any local programs use sampling, the state must also compute and report the range of the estimate, or the *confidence interval*, for the state average. For example, a state must report that 25 percent, plus or minus six percent, achieved the outcome. The overall response rate for the state should also be computed for each outcome measure by summing the total number of students who responded and dividing it by the total number of students included in the survey.

Exhibit 7

Sample Local Program Survey Report Form

Outcome Measure	Total Eligible Students with Main or Secondary Goal	Total Number of Students Sampled	Total Number of Students Responding	Number Achieving Outcome	Response Rate (Total Responding/ Total Sampled)
Entered Employment					
Retained Employment					
Receipt of Secondary Credential					
Entered Postsecondary Education or Training					

Reporting Follow-up Outcome Data to ED

States are to use NRS Table 5[6] to report the follow-up outcome data, including the total number of participants in each outcome group, the number that achieved the outcome and the percentage achieving each outcome. To assist ED in judging the quality and validity of the follow-up data conducted through the survey, states need to provide the information listed below about how the survey was conducted.

- The total number of programs that sampled students.
- The total size of the sample drawn and total number of students contacted.
- The state confidence interval for each measure where sampling was used.
- The state response rate for each measure.
- The time period when the survey was conducted.
- The methodology used to conduct the survey.

Survey Verification

Surveys such as the one proposed for the NRS, rely on students to report on their achievements. In the social sciences, this type of self-report data is often believed to be of questionable validity, since respondents may feel pressured to report a successful outcome. To gauge the extent of this potential bias and to improve the quality of data, validity studies are often conducted to verify survey findings.

[6] See *National Reporting System for Adult Education: Implementation Guidelines*. March 2001. Office of Vocational and Adult Education, U.S. Department of Education.

As a means of data quality control, states must verify at least one of the surveyed follow-up outcomes annually. This verification should be done through a random sample of students in the outcome area. The following sources may be used as a means of verifying the data and states are encouraged to develop additional ways to verify survey data.

- Employment—Contact employers or use data from the unemployment insurance database.
- Secondary Credential Attainment—Obtain data from the state GED database.
- Entry into Postsecondary Education or Training—Contact local community colleges and training programs to verify enrollment.

To validate data, the state should select the outcome area to validate and obtain lists of students who have achieved the outcome from each local program. Using these lists, the state should draw a statewide random sample to achieve a realized sample size of 500. The response rate should be no less than 50 percent. State staff should contact the verification sources and report the:

- Outcome area and total number of students sampled for verification;
- Response rate;
- Method used to select the sample;
- Number of students for which data were validated;
- Number of validated as true; and
- Sources used to validate the data.

States need only validate one outcome annually and validate a different outcome each year.

Alternatives to Surveying

Although states are not required to use a survey to collect the NRS follow-up measures, in many cases this methodology may be the best or the only alternative. As is apparent from this monograph, however, surveying is a complex and time-consuming activity. In particular, the burden on local programs can be substantial, as many programs may not have sufficient resources to conduct a survey. Consequently data quality may suffer. This section provides some suggestions for other ways of collecting these data. States are encouraged to consider and develop these and other ways to collect the NRS follow-up measures.

Employment Measures

Employment training programs funded under Title I of WIA use the wage records from each state's unemployment insurance database to report participants' employment outcomes. The states can also use this database to determine the entered and retained employment of adult literacy students to meet NRS requirements. Use of this procedure requires the state to create a statewide database with the records of exited adult education

students who had employment goals and then match these records quarterly with records on the UI database. A match indicates the student is employed. This data matching procedure requires a common identifier, usually students' Social Security numbers.[7] Unfortunately, most states do not currently have the infrastructure to support this option for adult education students.

Another approach to obtaining employment information is to have direct contacts with local employers. If the program works with a finite number of employers who are adult education students or if the program coordinates with job developers in an employment program, these sources can provide information on which students are employed and when. However, only small programs in small communities or programs that have few students with employment goals are likely to be able to use this approach.

Another way to collect employment data, at least for some students, is to have an agreement with local one-stop centers to identify co-enrolled students. The one stop center can inform the local program of which students are co-enrolled. Since one stop centers must determine employment of their participants using a data matching methodology, they can notify the local program of the job attainment of these students. The adult education program can then record this information in its data base.

Attainment of a Secondary Credential

Rather than survey students, the most direct way to collect this measure is to match students records with the state GED test data base and other state data sources that record awarding of secondary diplomas (such as adult high schools). On a periodic basis (e.g., annually, quarterly) the state can create a database of students with a goal of attainment of secondary credential and then match this database with the statewide GED or equivalent databases. A match would indicate attainment of the credential, which the state can count for NRS reporting. The state then would not need to survey these students.

Another way to obtain GED test results is to make an arrangement with the state's GED testing center to have the names of students who pass the tests submitted to the local adult education program or to a central state office. These names can then be matched to students in the local data base and counted for NRS reporting.

Yet a third way to obtain GED test results is to have the students sign a release to have test scores sent directly to the local adult education program. The program can then record test completion in its data base.

Entry into Postsecondary Education

In many communities, adult education students advance into local community colleges, four year colleges or other training programs that are known to program staff. Instead of surveying students with a goal of entry into postsecondary education, programs could contact these colleges and training programs directly to determine whether their adult education students enroll. The program can designate a staff person, such as a transition

[7] For more information on data matching sees Chapter IV, *National Reporting System for Adult Education: Implementation Guidelines*. June 2000, and *Report on the Pilot Test for the National Reporting System for Adult Education*. 1999. Office of Vocational and Adult Education, U.S. Department of Education.

coordinator, to maintain contacts with local colleges and provide the names of students they expect to enroll. The transition coordinator can then contact the college or school periodically to obtain updated enrollment lists and determine who has enrolled for NRS reporting. While this approach is not feasible in large urban areas, it could be used in small and medium-sized communities.

Appendix A

NRS Sampling Guidelines

Appendix A
The NRS Sampling Guidelines

The goal of a survey is to make an estimate of how a large group of people will score on measures by asking only a sample of people drawn from this population. Statistical theory allows us to make this estimate with a degree of uncertainty or sampling error. The main contributors to error in a simple random sample, such as will be drawn for the NRS, are determined primarily by (1) the size of the sample and (2) the degree of nonresponse to the survey. Each of these factors is discussed below in the context of the NRS sampling guidelines.

Sample Size

A simple fact of sampling is the larger the sample the smaller the error. However, there is a level of diminishing returns — once a large enough sample size is achieved the error decreases little. To non-statisticians this number seems surprising small: the error decreases at a markedly lower rate once the sample size reaches around 500.

The formula for computing the standard error for a percentage at the 95 percent confidence level, such as would be computed in reporting the NRS outcomes, is:

$$\sqrt{\frac{P(100-p)}{n}}$$

where p = the proportion found and n = the number of students in a sample.

Exhibit A-1 presents the standard errors for selected achieved sample sizes and percentages. For example, if a survey found that 25 percent of students from a sample of 300 students obtained a job, the standard error would be 2.50.[8]

Survey results are reported with a degree of certainty, known as a *confidence interval*, which by convention is an interval where there is a 95 percent certainty within which the number of interest falls. The confidence interval is computed by doubling the standard error and adding and subtracting the product form the mean. For the example above, where a sample of 300 found a 25 percent effect, the confidence interval is 20 percent – 30 percent (25 plus or minus 5). This interval is interpreted as meaning that there is a 95 percent certainty that the true percentage in the overall student population is between 20 percent and 30 percent, inclusive.

[8] Note that when there is no sampling, the standard error is zero. Thus, programs that do not sample students for the NRS have no standard error or confidence interval to report. There is no error because students responding to a universe survey are not drawn from a larger group of students.

Exhibit A-1

Standard Errors by Achieved Sample Size for Percentages of Students Achieving Outcomes

Achieved Sample Size	Percentage of Students Achieving Outcome						
	5	**10**	**25**	**50**	**75**	**90**	**95**
100	2.18	3.00	4.33	5.00	4.33	3.00	2.18
150	1.78	2.45	3.54	4.08	3.54	2.45	1.78
200	1.54	2.12	3.06	3.54	3.06	2.12	1.54
250	1.38	1.90	2.74	3.16	2.74	1.90	1.38
300	1.26	1.73	2.50	2.89	2.50	1.73	1.26
350	1.16	1.60	2.31	2.67	2.31	1.60	1.16
400	1.09	1.50	2.17	2.50	2.17	1.50	1.09
450	1.03	1.41	2.04	2.36	2.04	1.41	1.03
500	0.97	1.34	1.94	2.24	1.94	1.34	0.97
750	0.80	1.10	1.58	1.83	1.58	1.10	0.80
1000	0.69	0.95	1.37	1.58	1.37	0.95	0.69

Note: The table shows standard errors for the 95 percent confidence level. The standard error of a percentage larger than 50% is the same as the standard error of 100 minus that percentage (so the standard error of 75% is the same as that of 25%).

Setting the NRS Minimum Sample Size

The other factor that affects the setting of sample size is the cost of the survey. Since larger samples are more costly, the key to establishing an acceptable minimum sample size is to find the sample size one can afford, while keeping the error as low as possible. Within the NRS, it is recognized that states and programs have minimal resources to conduct surveys, yet the sample size must be sufficiently large so that the confidence interval is not too wide. Another factor affecting the decision of sample size is that we do not know the size of the percentages we will obtain for the outcome measures — i.e., what percentage of students will obtain jobs, enter postsecondary education and attain a postsecondary credential.

With these considerations in mind, we used the following criteria to set the minimum sample size for the NRS:

1. The largest standard error we would tolerate is about four (plus or minus 8 confidence interval).
2. The sample size we would ask local programs to use would be a small as possible to keep the cost low.
3. As do not know what percentage of students would achieve each outcome, we made the most conservative estimate. Therefore we assumed that 50 percent would achieve each outcome, which produces the highest standard error (see Exhibit A-1).
4. The minimal acceptable response rate was 50 percent, again to keep costs low.

Using these criteria, a realized sample size of 150 students is needed for the NRS (see Exhibit A-1), with an initial sample size of 300 drawn (assuming half will not respond).

With this minimum sample size, if 50 percent of students are found to enter employment, for example, the confidence interval is between about 42 (41.84) percent and 58 (58.16) percent. This percentage produces the highest error that could be obtained with this sample size. If 75 percent of students sampled obtained a job, for example, the standard error is 3.54. Since percentages other than around 50 percent produce smaller standard errors, states can use a different sample size, upon approval from the Department of Education, as *long as the realized sample can produce a standard error of four or less.* States must also achieve a minimum 50 percent response rate.

Response Rates

The other factor that affects sampling error is the response rate. This error is due simply to the fact that we do not know how people who did not respond to the survey would have performed on the measures (e.g., gotten a job, entered postsecondary education). For example, the nonrespondents to the NRS employment survey may have a substantially lower or higher rate of employment than do the respondents. By not taking this possibility into account, the estimate of employment rate, based only on the respondents, might be vastly overstated or understated.

Exhibit A-2 shows the 95 percent confidence intervals on some percentage of interest (like unemployment rate) for 50 percent nonresponse. In this table, we have made two different assumptions about the nonrespondents. For the lower bound of the confidence intervals (P low), we have assumed that *none* of the nonrespondents had the characteristic of interest (e.g., 0 percent obtained a job). In the upper bound of the confidence intervals (P high), we have assumed that *all* of the nonrespondents had the characteristic of interest (e.g., 100 percent obtained a job). For example, assume a program drew an initial sample of 300 and reached 150 students. If 25 percent of these students obtained a job, the true confidence interval taking into account all nonrespondents, is between about 9 percent and 66 percent (8.96 - 66.04).[9]

Exhibit A-2

Confidence Intervals for Varying Respondent Sizes and Percentages, 50 Percent Response Rate and Nonresponse Assumptions

		Response Rate = 50%			Nonresponse Rate = 50%				
		Percentage Achieving Outcome							
Number of Students Selected for the Survey		5.00		10.00		25.00		50.00	
Desired	Achieved	P Low	P High	P Low	P High	P Low	P High	P Low	P high
100	50	0.00	55.58	0.76	59.24	6.38	68.62	17.93	82.07
200	100	0.32	54.68	2.00	58.00	8.17	66.83	20.00	80.00
300	150	0.72	54.28	2.55	57.45	8.96	66.04	20.92	79.08
400	200	0.96	54.04	2.88	57.12	9.44	65.56	21.46	78.54
500	250	1.12	53.88	3.10	56.90	9.76	65.24	21.84	78.16

Note: P low assumes 0% of nonrespondents achieved the outcome, P High assumes 100% of nonrespondents achieved the outcome.

[9] Note that unlike standard error, error of the estimate due to nonresponse applies whether or not students are sampled. The uncertainty from nonresponse stems from the lack of knowledge of nonrespondents – and both universe and sample surveys may have some degree of nonresponse.

It is this effect on the precision of the results that makes nonresponse so problematic. For this reason, follow-ups of the nonrespondents are essential to try to reduce the level of nonresponse as much as possible. Bearing in mind the substantial cost to do follow-ups, however, we decided that a 50 percent response rate was the minimum acceptable for the NRS.

Adjusting for Nonrespondents

For the NRS, as with other surveys, a decision had to be made on how to adjust for nonresponse. There are four basic ways to adjust for nonresponse.

1. Assume *none* of the respondents achieved the outcome (P Low in Exhibit A-2). This assumption is the *most* conservative way to adjust for non-response, as it lowers the estimate substantially when nonresponse is high.

2. Assume *all* of the respondents achieved the outcome (P High in Exhibit A-2). This assumption produces the *least* conservative way to adjust for non-response, as it raises the estimate when nonresponse is high.

3. Assume nonrespondents are *exactly* like respondents. This assumption means that the effect found among respondents would be the same as among nonrespondents. For example, if 25 percent of respondents report having gotten a job, we assume 25 percent of nonrespondents also got a job. Although this assumption is probably not true (i.e., that respondents and nonrespondents are exactly the same), it is how nonresponse is handled in many surveys and without evidence to the contrary, is a defensible, middle-of-the-road approach.

4. Make a statistical estimate of how the nonrespondents would score based on other data. This procedure produces the most accurate estimate, if there exists data that are predictive of the outcome. Unfortunately, we know of no data that programs could readily use to make these adjustments. In addition, the cost of doing such adjustments is prohibitive within the NRS.

For the NRS, we decided to adjust using the third option above. We assume nonrespondents and respondents would score alike on the outcomes. While this assumption may not be accurate, in the absence of other data it is acceptable practice for the purposes to which the NRS data will be used.

Appendix B

Sample Surveys and Sample Survey Procedures

Sample Local Follow-up Survey for Core Measures

A. ENROLLMENT

Hello. My name is _____. I work for _____. We're calling people who have recently attended classes at our adult education program to find out what happens t them after they leave us. We want to know how you liked the classes you took and how adult education classes have affected you, your family, and your job.
It should take no longer than 10 minutes to answer my questions. Do you have time now for me to ask these questions?
(Reassure the respondent that any information given to us will be strictly confidential).
First, I'd like to make sure I have the correct information about the class you took.

A-1. I understand that you were in (TEACHER'S NAME)'s class at (LOCATION. Is that correct?

- ❑ Yes
- ❑ No *[Obtain correct information]*

A-2. Did you attend teacher's class until it ended or did you leave before it ended?

- ❑ Completed *[Proceed to Question B-1]*
- ❑ Left before it ended *[Proceed to Question A-3]*

A-3. During what month did you stop attending the class or program?

Month _____

B. OTHER EDUCATION AND TRAINING

B-1. Since the end of your class or program, have you enrolled in any other educational or training programs?

- ❑ Yes
- ❑ No *[Proceed to Question C-1]*

B-2. Where are you enrolled?

- ❑ Other (Specify)_____

B-3. In what type of class or classes are you now enrolled? [Do not read choices. Check all that apply.]

- ❑ English Language Skills
- ❑ GED/High School
- ❑ Vocational/Job Training
- ❑ Community College/College Level
- ❑ Citizenship
- ❑ Family literacy
- ❑ Other (Specify)_____
- ❑ DK/Refused

C. SECONDARY CREDENTIAL

C-1. Did you receive any diplomas, certificates, or degrees at the end of your class or since you left (TEACHER'S) class, such as the GED?

- ❑ Yes
- ❑ No *[Proceed to Question D-1]*
- ❑ DK/Refused *[Proceed to Question D-1]*

C-2. What type of diploma/certificate/degree did you receive? [Do not read choices to respondent. Check all that apply.]

- ❑ GED
- ❑ High School Diploma
- ❑ Certificate of Competence
- ❑ Associate's Degree
- ❑ Bachelor's Degree
- ❑ Other_____
- ❑ DK/Refused

D. EMPLOYMENT

D-1. When you first enrolled in the class or program were you: [Read choices.]

- ❑ Employed at a paying job *[Proceed to Question D-4]*
- ❑ Not employed at a paying job and looking for a job *[Proceed to Question D-2]*
- ❑ Not employed and not looking for a job *[Proceed to E-1]*
- ❑ DK/Refused *[End interview]*

D-2. While you were taking (TEACHER'S)'s class did you get a paying job?

- ❑ Yes
  If yes: What was the name of your employer? _____*[Proceed to Question D-4]*
- ❑ No

D-3. Since you stopped taking the class, have you gotten a paying job?

- ❑ Yes
  If yes: What is the name of your employer? _____

  When did you first get a job after leaving the program? _____
- ❑ No *[Proceed to Question E-1]*

D-4. Do you still have that job or do you now have a different job?

- ❑ Still have same job
- ❑ Have different job
  What is the name of your current employer? _____
- ❑ Lost job, unemployed
- ❑ DK/Refused

E. CLOSING

Thank you very much for taking the time to answer my questions. Your answers will be very helpful. The information you gave me will be used to help make adult education programs better and more useful to people like you who have attended or would like to attend such a program.

E-1. Is there anything that I didn't ask about that you'd like to say?

_____

_____

_____

_____

_____

Calling Log

Interviewer: _____

Date & Time	Name	Contact (who, nature of conversation, any messages left, etc.)	Status (Interview completed, scheduled recall)

Sample Follow-up Survey for Core, Secondary, and Other Measures

Hello. My name is _____. I work for _____. We're calling people who have recently attended our classes at our adult education programs to find out what happens to them after they leave us. We also want to know how you liked the classes you attended and how adult education classes have affected you, your family, and your job.

It should take no longer than 15 minutes to answer my questions. Do you have time now for me to ask these questions? *(Reassure the respondent that any information given to us will be strictly confidential*).

ATTENDANCE/OBJECTIVES

A-1. I understand that you were in (TEACHER'S NAME)'s class at (LOCATION). Is that correct?

- ‘ Yes
- ‘ No *[Obtain correct information]*

A-2. During what month and year did you enroll in this program?

Month _____ Year _____

A-3. Did you attend the class/program until it ended?

- ‘ Yes *[Proceed to question B-1]*
- ‘ No *[Proceed to question A-4]*

A-4. During what month did you stop attending the class or program?

Month _____

A-5. What was the *main* reason you stopped attending the class or program? *[Do not read choices to respondent. Check category that is most closely related to response.]*

- ‘ Achieved reason for enrollment
- ‘ Completed class
- ‘ Illness/Incapacity
- ‘ Lack of child care
- ‘ Lack of transportation
- ‘ Family problems
- ‘ Time or location of services not feasible
- ‘ Lack of interest
- ‘ Instruction not helpful
- ‘ Instructor was not good
- ‘ Program didn't satisfy personal goals
- ‘ Not satisfied with program
- ‘ Moved
- ‘ Entered employment
- ‘ Entered other education or training program
- ‘ Other (Specify:_____)
- ‘ DK/Refused

SECONDARY CREDENTIAL

B-1. Did you receive any diplomas, certificates, or degrees since you took this class, such as a GED?

- Yes *[Proceed to question B-2]*
- No *[Proceed to question C-1]*
- DK/Refused *[Proceed to question C-1]*

B-2. What type of diploma/certificate/degree did you receive? ***[Do not read choices to respondent. Check all that apply]***

- GED
- High School Diploma
- Certificate of Competence
- Associate's Degree
- Bachelor's Degree
- Other_____
- DK/Refused

OTHER EDUCATION AND TRAINING

C-1. Since you stopped attending the class or program, have you enrolled in any other educational or training programs?

- Yes
- No *[Proceed to question D-1]*

C-2. Where are you enrolled?

- ❑ Other (Specify)_____

C-3. In what type of class or classes are you now enrolled? ***[Do not read choices. Check all that apply.]***

- English Language Skills
- GED/High School
- Vocational/Job Training
- Community College/College Level
- Citizenship
- Family literacy
- Other (Specify)_____
- DK/Refused

EMPLOYMENT

D-1. While you were enrolled in the class or program, were you receiving any type of public assistance, such as food stamps or welfare benefits?

- Yes
- No *[Proceed to question D-3]*
- DK/Refused *[Proceed to question D-3]*

D-2. Are you currently receiving this type of public assistance?

- ‘ Yes
- ‘ No
- ‘ DK/Refused

D-3. When you first enrolled in the class or program, were you: *[Read choices.]*

- ‘ Employed at a paying job *[Proceed to question D-6]*
- ‘ Not employed at a paying job and looking for a job *[Proceed to question D-4]*
- ‘ Not employed and not looking for a job *[Proceed to question E-1]*
- ‘ DK/Refused [*Proceed to question E-1*]

D-4. While you were taking this class, did you get a paying job?

- ‘ Yes
  If yes: What was the name of your employer? _____*[Proceed to Question D-6]*

- ‘ No *[Proceed to question D-5]*

D-5. Since you stopped taking this class, have you gotten a paying job?

- ‘ Yes
  If yes: What is the name of your employer? _____*[Proceed to Question D-6]*

  When did you first get a job after leaving the program? _____

- ‘ No *[Proceed to E-1]*

D-6. Do you still have the same job, have a different job, or have no current job?

- ‘ Still have the same job
- ‘ Have a different job
  What is the name of your current employer? _____
- ‘ Have no job, unemployed
- ‘ DK/Refused

COMMUNITY IMPACT

E-1. Compared to before you attend the class, have you increased your attendance or activities in any of the following: *[Read choices. Check all that apply.]*

- ‘ Neighborhood meetings
- ‘ Meetings of political groups
- ‘ Volunteer work or meetings for community organizations
  (List: _____)
- ‘ Do not got to meetings or volunteer
- ‘ DK/Refused

E-2. Did you register to vote or vote for the first time since you attended the class?

- ‘ Yes
- ‘ No
- ‘ DK/Refused

FAMILY

F-1. Do you live with children who are 12 years old or younger?

- Yes
- No *[Proceed to question G-1]*

F-2. Since you attended the class, how much do you read with your children compared to before you attended the class? Do you:

- Read with children about the same as before
- Read with children more than before
- Read with children less than before
- Do not read with children at all
- DK/Refused

F-3. How often do you visit the library with your child/children now compared to before attending the program? Do you:

- Go more often
- Go the same amount
- Go less often
- Not go at all
- DK/Refusal

F-4. Is/are the child/children in your home attending school?

- Yes *[Proceed to question F-5]*
- No *[Proceed to question G-1]*

F-5. Compared to before you attended the class, how much time do you spend helping the school-aged children in your home with homework? Do you:

- Help about the same
- Help more than before
- Help less than before
- Not help at all
- DK/Refused

F-6. Compared to before you attended the class, how many of your children's school activities including parent/teacher conferences and school assemblies have you gone to?

- Attend about the same
- Attend more activities
- Attend few activities
- Do not attend activities
- DK/Refused

SATISFACTION WITH PROGRAM

G-1. What is your general opinion of the quality of the class you attended? Is it unacceptable, not very good, satisfactory, or excellent?

- Unacceptable
- Not very good
- Good
- Excellent
- DK/Refused

G-2. Did (TEACHER'S NAME)'s class meet the expectations you had for it before you enrolled in it?

- Yes
- No
- DK/Refused

G-3. Are you not at all likely, somewhat likely, or extremely likely to attend another class or program offered by *(PROGRAM/CLASS ORGANIZER)*?

- Not at all likely
- Somewhat likely
- Extremely likely
- DK/Refused

G-4. What did you like about this class or program? *[List all responses.]*

_____
_____
_____
_____
_____

G-5. What did you not like about this class or program? *[List all responses.]*

_____
_____
_____
_____
_____

CLOSING

Thank you very much for taking the time to answer my questions. Your answers are very helpful. The information you gave me will be used to help make adult education programs better and more useful to people like you who have attended or would like to attend such a program.

H-1. Is there anything that I didn't ask about that you'd like to say?

_____
_____
_____
_____
_____
_____
_____
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MODEL PROCEDURES FOR CONDUCTING THE LOCAL FOLLOW-UP SURVEY

This section describes model procedures for conducting a telephone survey designed to collect the NRS follow-up measures. The model is offered as guidance to states in designing and conducting the follow-up survey. *These procedures are not required, however, and states may develop their own procedures for conducting the survey,* as long as they meet the NRS requirements described in this document.

The crucial activities to a conducting a telephone survey that produces valid data are to:

1. Draw a sample of students that reflects the students who attend your program with one or more of the four core outcomes as main or secondary goals;
2. Reach the students sampled and obtain the information from a large majority of them so as not to invalidate the sample; and
3. Train telephone interviewers so that all interviewers ask the survey questions correctly and reliably.

Selecting the Sample

The procedures below present a method for randomly selecting a sample of 300 students who left the program.

1. Generate a list from your database of names, with telephone numbers and contact information, of students who have left the program, organized by the four core follow-up measures. Use students' stated main or secondary goals to identfy the groups. You should also have the exit quarter for students with employment goals. You may use separate lists for each of the four follow-up measures or a single list with all students.

2. Go through the list to identify any individuals who do not have a telephone number or any contact information. Cross these names off your list.

3. *We want to compute a sampling fraction* that will give us a 300 student sample. The sampling fraction is computed by dividing the total number of students to be sampled by the desired sample size. If we have 600 students, the sampling fraction is 600/300 = 2. If the sampling fraction is not a whole number, it should be rounded to the nearest whole number.

4. From your list, count down the number of students determined by the sampling fraction and include that student in the sample and continue this way throughout the entire list. For example, in this example the sampling fraction is 2, so include the second student on the list and every other student thereafter. When you are finished, you will have a sample of 300 students. This is your *primary* sample.

5. Create a *backup* sample of 50 percent more students than your primary sample. Randomly select the backup sample in the same way as the original sample. Compute the sampling fraction by dividing the number of students you need by the number of students remaining on the list. Use this number to select every n^{th} student from the list. Make sure you have a backup sample sufficient for each of the four core outcome measures. The backup sample is used to replace students from the primary sample who cannot be reached after four attempts (see below). If there are fewer students remaining on your list than you need for the backup sample after you have selected your primary sample, all of these students will be included in the backup sample.

Survey Procedures

Once you have your sample, you can begin calling students and administering the survey. Call each person on your primary sample list. If you cannot reach a person despite your best efforts, replace that student with a student from the backup sample.

As you conduct the survey, it is very important to the integrity of the data collected to know how many people in the sample were not reached, how many refused to participate, and what the reasons for refusal were. For this reason, maintain a calling log during the conduct of the survey. Entries in the log should contain the date and time of each call, the name of the caller, and information about the call, including: the name of the respondent, whether the person was reached, messages left, whether the interview occurred, and explanations for why it did not. The logs should be checked daily to identify respondents who need to be re-called. They should also be checked against the list of learners in the sample to make sure all members of the sample are being called and contacted. Callers should promptly make a log entry for every telephone call they make, whether or not the adult learner was reached. This Appendix includes a sample calling log.

The validity of the survey depends on reaching all or at least a majority of the students in the sample. There will be many difficulties, however, in reaching all of the students in the sample. The following section describes some of the most common difficulties in reaching people for a telephone survey and guidance on how to resolve these problems.

Problems Reaching Learners on the Telephone

In most data collection activities, there are predictable kinds of problems that may be encountered. Interviewers may be unable to reach the correct person, the learner may not want to speak to the caller, or they may have a protective family. Additionally, learners may not want to answer some or all survey items; they may be hostile, confused, or just harried. Further, callers may be required to answer questions that they are not equipped to answer.

Interviewers should have a resource person available who can assist with difficult interviews or respondents, and complicated questions. This person should have thorough familiarity with the NRS and the procedures used to conduct telephone interviews. She or he should monitor interviewer telephone logs, provide general oversight during the interviewing process, and could also be responsible for the training.

Accommodation for other languages. Since the sample may include ESL students and other non-native English speakers, interviewers are likely to encounter a language barrier in the course of data collection. Every effort must be taken to collect information from all non-English speakers included in the sample. Accomplishing this may require the program to translate the survey and use interviewers who are fluent in the languages that may be encountered during the interviews. The NRS has Spanish and Vietnamese versions of the model survey, available on request.

When the student cannot be reached immediately. A gatekeeper is a person or situation that stands between you and the person with whom you need to talk. Common gatekeepers are family members, and even answering machines.

- *Reaching a family member or other person*

3. Leave a message. The message should be as follows:
    - Interviewer's name
    - Calling from (name of program)
    - Calling in reference to the adult education program the person attended
    - Interviewer will call back at another time.
4. Ask a few questions:
    - When is the learner expected back?
    - What and when is the best way to reach her/him?
5. Wait for no more than two days between callbacks.
6. If multiple messages (more than 3-4) have been left, but the learner has not been contacted, the learner should be officially listed as a non-respondent on the calling log sheet and replaced from the backup sample.

- *Reaching voice mail or an answering machine*

7. Leave a message. The message should be as follows:
    - Interviewer name and where interviewer is calling from (name of program)
    - Calling in reference to the adult education program the person attended
    - Interviewer will call back at another time
8. Wait for no more than two days between callbacks.

9. If multiple messages (more than 3-4) have been left, but the learner has not been contacted, the learner should be officially listed as a non-respondent on the calling log sheet and replaced from the backup sample.

    - *Reaching a non-working number or a number that just rings*

10. Non-working number should be noted on the calling log sheet as not working.

11. If the number just rings, the day and time the interviewer called should be noted on the log sheet, and the learner should be called at a different time. If multiple calls (more than 3-4) are made at different times of the day, and there is still no answer, the learner should be officially listed as a non-respondent on the calling log sheet and replaced from the backup sample.

Dealing with refusals. The goal of telephone interviews is to obtain information from all the people contacted. However, some interviewees may be initially reluctant to participate in the survey. The interviewer should try to "convert" refusals whenever possible; callers should, however, never become belligerent or upset or insist that a person complete the survey.

The best way to handle a refusal is for the caller to present himself or herself as confident and proud of the work they are doing. The interviewer should indicate that this survey is an important way of providing information to the State Department of Education and the adult education program, and decisions about adult education will be made based on this information.

There are several points in the interview when callers may encounter refusals or reluctance. The following examples provide ways to handle this.

Initial refusal. When learners are first reached, they may not be prepared to speak with the interviewer. They may be very busy. If this is the case:

- Ask about the timing: I'm sorry we reached you at a bad time. When might be a more convenient time to reach you? Possible solutions include offering to call them a week later, a month later, etc., as long as this is recorded so that the follow-up call is made.

- When the learner has been reached, but absolutely refuses to participate, a complete description should be recorded on the calling log and given to the resource person for further attempts.

Confusion-based refusal. Adult learners who are contacted may be confused or wary about how the information collected in the interview will be used. For this reason, they may refuse to take part in the interview.

- If the learner wants to know why the survey is being conducted, the interviewer should explain the purpose of the study, emphasizing that the information collected has important implications for the national adult education program, as well as for the program she or he attended.

- If the learner wants to know how their information will be used, the interviewer should assure the learner that the data will be compiled to find out how well adult education programs are performing throughout the country and to improve program services. Further, all of the answers that the learner gives will be kept confidential and that no names or other identifying information will be associated with their answers. Learners should also be assured that they were chosen randomly from the pool of adult learners in the state.

Time or burden-based refusal. This type of refusal can occur early in the interview, or at a later point. Interviewees may be pressed for time and may try to terminate the interview. If this is the case:

- The interviewer should point out that the survey will only take 10-15 minutes, acknowledge that the learner's time is really important, and tell them that their responses to the survey questions would be really helpful: I understand that your time is important. We really appreciate your input on this issue. It is important to get the perspective of adult education students.

- The interviewer should tell them about the sampling process: Of the [number] students that attended the adult education program, you have been selected as one of only [number] to represent the program. Your help is important to us.

If the respondent is still reluctant, one other strategy may be helpful:

- The interviewer should try to arrange an alternate time: Might there be a better or more convenient time to contact you?

If none of these strategies is successful, the interviewer should NOT try to persuade the learner further. The learner should be thanked for their patience, and told that the caller appreciates all the demands on their time. The interviewer should then record a complete description on the calling-log contact sheet and the student should be replaced from the backup sample.

Training

Staff members who will be conducting the telephone interviews should be trained to ensure the integrity of the data collected. To collect valid and reliable data, interviewers must be thoroughly familiar with both the process of interviewing and the materials to be used for collecting data. The actual training, therefore, can be characterized as having two components: the process of conducting telephone interviews and the purpose and structure of the NRS. This section provides suggestions on appropriate training activities.

Focus of Training

Regardless of the survey, any errors, biases, or inconsistencies on the part of the interviewer result in some degree of survey error. It should be a goal to minimize this error. Trained interviewers are much more likely to accomplish this goal. The desired result is high quality data, so that data are comparable from one interview to another, as well as from one

state to another. The following guidelines should help minimize survey error, and should thus be conveyed to the interviewers during their training.

1. The interviewing process should be standardized. To ensure that this occurs, interviewers must read the questions exactly as written and follow the instructions on the survey instrument.

2. Interviewers should avoid biasing answers by not showing criticism, surprise, approval, disapproval, and/or annoyance at a response; recording answers promptly and accurately; and probing for clarification when necessary.

3. Interviews should be completed in the time promised to the respondents. The interview is designed to take about 10 minutes.

4. Interviewers must be familiar with the material, including the meaning of individual questions and the definitions of words and phrases contained in the survey instrument.

5. Administrative issues should be attended to as soon as possible, including making a record of EVERY call made, even if the interviewers reached a wrong number, if nobody answered, or if a message was left.

6. Interviewers should have a thorough understanding of the purpose and structure of the NRS and the pilot, as explained in this manual.

Conducting the Training

Training interviewers can take many forms, including workshops and meetings. There are, however, a few techniques which will make the training more meaningful, and thus make the data collected more useful and comparable between states. Among these techniques are:

- **Going over the protocol question-by-question.** This will give interviewers a familiarity with the questions and answers they are likely to get during their telephone calls. It will also allow them to become comfortable with the decisions that must be made as the interview begins.

- **Conducting mock interviews with adult education office staff or teachers.** This simulates real world conditions, giving interviewers valuable practice on how to conduct interviews. It also allows adult education office staff to identify issues that were not made clear earlier in the training process and to identify problems with the data collection procedures in place.

- **Conducting a mini-pilot test with students not included in the official NRS sample in the state.** This activity will identify previously unconsidered issues and provide the most realistic training for the interviewers. It is an excellent last step prior to officially collecting data.

Appendix C

Computing the State Rate from Local Samples

Appendix C
Computing the State Average and Confidence Interval from Local Data

States must report the overall state average for each of the four follow-up outcome measures to report to the U.S. Department of Education. To calculate this average, states must combine the averages from all of the separate local programs into a single average. If any local programs used a sample of students for any of the outcome measures, as will probably be the case for most or all states, the state must also report the overall confidence interval for the state average. The state must also report the state response rate. This Appendix explains the procedure for calculating these numbers.

Computing the State Average

Each local program must report the following information to the state:

1. **N —** The total number of students in the outcome group (i.e., total number of students who had a main or secondary goal related to the outcome).

2. **n —** The total number of students who responded to the survey.

3. **r —** The percentage of students who obtained the outcome.

4. The size of the sample drawn, if the program sampled. For programs that did not sample, this number will be the same as *N* (number 1, above). The response rate is the number who responded (n) over the total number (N).

To determine the state average, average each program measure according to the formula:

$$R_{state} = \frac{\sum_{s=1}^{S} r_s N_s}{\sum_{s=1}^{S} N_s}$$

This formula simply means that the percentage (r) from each program is multiplied by the total number of students in the outcome group (N) from each program and divided by the total number (N) and then summed for each program. For example, suppose one program has 150 students with a goal of obtain employment, tries to contact them all (does not sample), reaches 100, and finds that 25 percent of the 100 are employed. A second program has 2,000 students with a goal of obtain employment, samples 600 and reaches 300. Of these 300, 30 percent are employed. These programs then report to the state the following:

Program 1	**Program 2**
N = 150	**N** = 2,000
n = 100	**n** = 300
r = 25	**r** = 30

The state average (R) is then:

$$\mathbf{R} = \frac{(25 * 150) + (30 * 2000)}{150 + 2000} = 29.65$$

Notice that this state average, 29.65 percent, is much closer to the average of Program 2, since Program 2 has more students and thus represents more of the state adult education student population who have an employment goal.

The state would also report the response rate for both programs. For Program 1 the response rate is 100/150 = 67 percent and for Program 2 it is 300/600 = 50 percent. The combined response rate is $\frac{100 + 300}{150 + 600} = 53.3$

Computing Confidence Intervals

If any program samples students, as is the case with Program 2 in the example above, the state must also compute and report the overall confidence interval for the state average. The confidence interval represents the amount of uncertainty to the state estimate that results from the sampling error.

To compute the state confidence interval, the state must first compute the standard error (SE) for each program that sampled. SE is computed according to the formula:

$$\sqrt{\frac{r(100-r)}{n}}$$

The confidence interval is computed by doubling the standard error and then adding it to the average to get the upper bound (r_{hi}) and subtracting it from the average to get the lower bound (r_{low}).

If the program does not sample, there is no standard error due to sampling and r_{lo} is the same as r_{hi}, which is the same as the state average. In the example given above, Program 1 did not sample, so its SE = 0. Consequently:

Program 1

N_1 = 150

n_1 = 150

r_1 = 25%

$r_{1,\,lo}$ = 25%

$r_{1,\,hi}$ = 25%

For Program 2, which did sample, the state would first have to compute the standard error:

$$\sqrt{r_2(100-r_2)/n_2} = \sqrt{30(100-30)/300} = 2.65$$

Thus for Program 2:

N_2 = 2000

n_2 = 300

r_2 = 30%

$r_{2,lo}$ = $30 - 2 \bullet 2.65 = 24.7\%$

$r_{2,hi}$ = $30+2 \bullet 2.65 = 35.3\%$

In this example, the lower and upper bounds of the confidence interval on the overall state rate are thus:

$$R_{state,lo} = \frac{25 \bullet 150 + 24.7 \bullet 2000}{150 + 2000} = 24.72$$

$$R_{state,hi} = \frac{25 \bullet 150 + 35.3 \bullet 2000}{150 + 2000} = 34.58$$

In this example, the state would then report that the number of students who entered with a goal of obtain employment who obtained employment ranges from about 24.72 to about 34.58 percent. Another way to say this is that the average proportion of students who obtain employment is 29.65 percent, plus or minus 4.93.